EARNED VALUE
in
PERFORMANCE BASED CONTRACTING

Author: Rami Acouri

Email: rami.acouri@pwgsc.gc.ca

Date: 20-23 October 2003

Some Project Management Rules

- I can only please one person per day. Today is not your day. Tomorrow is not looking good either.
- I love deadlines. I'm particularly fond of the whooshing sound they make as they go flying by.
- If it weren't for the last minute, nothing would get done.
- I don't suffer from stress. I am a carrier.

Performance based contracting (PBC)

- Specify the “what” and leave the “how” to industry
- Establish measurable outcomes rather than processes
- Use measurable performance standards
- Increase the reward and establish real losses
- Pay fully or partially based on performance
- Award a long term contract
- Facilitate adoption of best commercial practices

The US Environment

- In 1995, 26 Federal contracts with a total value of $585M were converted in a pilot program
- As a result, the average contract price declined by 15%
- No longer a choice, but a requirement
- US DoD has established, at a minimum, 50% of service acquisition to be performance based by year 2005
- NASA's contracting method of choice

The Canadian Environment

CF-18 Hornet , CC-130 Hercules and CP-140 Aurora

* 1999- Primary Weapon System Support (PWSS)

* 2000- System Support Contracting (SSC)

* 2002- Optimized Weapon System Management (OWSM)

} **PBC + Bundling**

CF-18 Fleet

- Primary Air Vehicle (PAV) - Under negotiation
- Avionics (AVS) - Under negotiation
- Propulsion (PG) - Revised procurement strategy

PAV Contract

- Performance Work Statement & Annual Operating Plan
  - Scope
  - Performance Metrics
- Basis of Payment
  - Firm Fixed Price
  - Time and Material
  - Target Incentives
- Reward & Losses
  - Profit
  - Performance Pay
  - Performance Incentives
  - Value Engineering

Performance Measurements

- Performance Pay
  - Extracted from the profit envelope
  - Allocated annually to selected metrics with predetermined levels
  - Receiving a pay is based on achieving those predetermined levels
- Performance Incentives
  - Generated from potential savings
  - Not treated as profit
  - Allocated annually to selected metrics with predetermined levels
  - Receiving incentives is based on achieving higher levels
  - Size of incentive is based on a predetermined scale

Suggested Performance Pay

- Timeliness
- Availability of PAV
- Availability of spares
- Quality of training with industry
- Quality of Integrated Information Environment

Suggested Performance Incentive

- Cost estimate
- PAV quality
- Third Line maintenance delivery
- Spares quality
- Quality of engineering solutions

Cost Savings Metric

- Meet DND’s objective
- Encourages cost underruns
- Provides surplus funds for additional work
- Win-win scenario for both DND and industry

Cost Savings Metric Indicator

$EAC = ACWP_{CUM} + [\ BAC - BCWP_{CUM}\ ] / CPI_3$

Where:

EAC = Estimate at Completion

$ACWP_{CUM}$ = Cumulative Actual Cost of Work Performed

BAC = Budget at Completion

$BCWP_{CUM}$ = Cumulative Budgeted Cost of Work Perform

CPI_3 = Cost Performance Index for the last 3 mon

$CPI_3 = BCWP_3 / ACWP_3$

$BCWP_3$ = Budgeted Cost of Work Performed for the last

$ACWP_3$ = Actual Cost of Work Performed for the last 3

Metric Calculation

* Compare EAC to BAC and determine ratio
* If Ratio < 1 □ $ Performance Incentive, based on a sca

Ratio	.85	.86	.87	.88	.89	.90	.92	.94	.96	.98	1.0
Percent Of Inc.	100	90	80	70	60	50	40	30	20	10	0

* If EAC □ BAC □ $ None

Conclusion

* Use of **Earned Value**

* Use of **Performance Based Contracting**

} **Synergy for better results**